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POPULATION AND ECONOMIC PROJECTIONS FOR THE STATE OF HAWAII, 1980-2005

Research and Economic Analysis Division
Department of Planning and Economic Development
State of Hawaii

July 1984

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July 17, 1984

MEMORANDUM

TO: All Users of Population and Economic Projections for Hawaii

FROM: Kent M. Keith

SUBJECT: Recommended Projections for Planning Purposes

This report presents projections of economic and demographic trends and characteristics for Hawaii, 1980 to 2005, recommended for planning purposes.

The report was prepared in response to legislation enacted in 1979 (HRS, 1982 Supp., sec. 201-44), assigning responsibility for "statistics and other information, as to the number, characteristics, needs, and movement of people into, out of, or within Hawaii, including residents, migrants, and visitors ... for purposes of effective state planning, delivery of governmental services, and long-range policy making," to the Director of Planning and Economic Development.

Adoption of these projections by interested agencies and individuals will do much to assure consistency and uniformity in planning efforts.

The projections described in this report replace a now-outdated set published by DPED in March 1978. The earlier series, labeled "II-F", were prepared based on the information available at the time of their publication. Since 1978, however, extensive revisions in the 1975 estimates used as a base and the release of 1980 census results and related intercensal and postcensal economic and demographic statistics have underscored the advisability of making a new study. Although these new projections, termed "M-F", do not differ radically from the 1978 set, they introduce many refinements into the underlying details, and moreover carry the time horizon an additional five years, to 2005.

I wish to stress that these projections represent expected trends and not economic or population goals. They are not to be confused with the State Administration's broad objective of moderating or stabilizing growth rates through orderly management. No effort has been made to introduce value judgments in making projections to reflect the desired level of population and economic activities.

Obviously, there will be further changes, as new trends emerge and new data sources and methods of analysis become available. Until then, however, these projections should be useful to all who must plan for Hawaii's future and must rely on carefully prepared economic and population projections.

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Introduction

This report summarizes newly revised projections of the population and economy of Hawaii, prepared by the Department of Planning and Economic Development for use in planning activities of State and county agencies. Additional information on methods and results can be found in the technical document, Hawaii Population and Economic Projection and Simulation Model: Updated State and County Forecasts (forthcoming).

The present series replace an earlier set published by DPED in 1978. The previous projections, labeled "II-F", were based on postcensal estimates for 1975, and covered the 25-year period ending in 2000. Major data revisions subsequently made in the 1975 estimates used as a base for the II-F projections, the availability of 1980 census statistics and postcensal figures extending to 1983 in many cases, and the need for projections running at least as far as 2005 have since then required a comprehensive review of the 1978 study. Although the new projections reported in this summary, designated "M-F", do not drastically alter the trends foreseen in the earlier effort, they do provide numerous refinements not available six years before, and moreover carry the analysis into the first decade of the 21st century.

Major findings

The "M-F" projections contained in this report indicate continued growth in both the population and economy of the State, although at a somewhat reduced rate compared with the rapid increases of the past quarter of a century. The resident population, which includes members of the armed forces and their dependents but excludes visitors, is expected to rise from 969,000 in mid-1980 and 1,023,000 in 1983 to 1,310,000 in 2005. The de facto population, which includes visitors present but

excludes residents temporarily away, is expected to grow from 1,055,900 in 1980 to 1,501,000 twenty-five years later (table 1).

Population increases on the Neighbor Islands are likely to be especially large. The resident total on Oahu is expected to rise 24.8 percent, from 765,000 in 1980 to 954,500 in 2005. The Neighbor Island total, in contrast, is projected to rise 74.3 percent over the 25-year period, from 204,000 to 355,500. All three Neighbor Island counties should share in this expansion. Oahu will probably account for 73 percent of the State resident total in 2005, compared with 79 percent in 1980 (table 2).

Diminished birth rates and longer life expectancy will inevitably produce an aging of the population, with the median rising from 28.3 years in 1980 to 34.7 years in 2005. The population under 15 years of age will fall from 23.3 percent of the total to 20.3; during the same quarter of a century, persons 65 years old and over will rise from 7.9 percent of the total to 13.5. The sex ratio, 105.2 males per 100 females in 1980, may decline by 2005 to 101.5 (table 3).

The civilian jobcount, which was 441,100 in 1980, will increase to 605,400 by 2005. Two major industries, agriculture and food processing, are expected to decline in employment, and manufacturing and Federal Government are expected to achieve only modest gains. Trade and service employment, however, are expected to show continued rapid increases (table 4).

Income projections reveal significant growth, although much less so on a per capita basis. In constant 1980 dollars, the new study indicates gross State product rising from $11.3 billion in 1980 to $20.2 billion in 2005, or 78.0 percent. Similar increases are likely in personal income,

both total and disposable. Per capita personal income, however, should rise only moderately, from $10,188 in 1980 to $14,000 (in 1980 dollars) in 2005, or 37.4 percent (table 5).

Details of the population and economic projections by counties are shown in tables 6 and 7.

Comparison with other projections

These projections are somewhat higher than those published by DPED in 1978, primarily because of the revisions later introduced (by Federal agencies) in the postcensal estimates used as a base for the earlier study. The resident population indicated in the II-F study for 2000, for example, was 1,225,900, as against 1,267,800 in the new (M-F) projections.

Other organizations that have recently issued State-level projections to 2000 and beyond include the U.S. Bureau of the Census, U.S. Bureau of Economic Analysis, Joint Center for Urban Studies at MIT, and National Planning Association. Although their projections of resident population for 2000 range from 1,165,000 to 1,399,000, most fall surprisingly close to the DPED M-F estimate of 1,267,800. The revised BEA projections, for instance, is 1,269,000, and the Census Bureau figure (calculated by an entirely different method) is 1,278,000 (table 8).

Methods and assumptions

The new projections, like those developed in 1978, are the product of a linking of economic and demographic models. Initially, the updated State input-output model was utilized to develop long-range projections of jobs by industry, labor force, and income for the State. Using projected age-sex-specific labor force participation rates, the labor force estimates were then combined with data on population structure, births, deaths, and migration to develop quinquennial projections of the

population of the State by age, sex, military status, and its components of population change. A shift-share technique was then applied to the statewide figures to produce county employment and population figures to 2005. Basically similar to the approach adopted in the II-F study, this analysis benefitted through the incorporation of methodological refinements and input data obtained from the recently released 1980 decennial census.

Although the present analysis entailed a sizable number of separate assumptions, estimates, and projections, those bearing on Hawaii's visitor industry were particularly crucial to the final results. The use of the model for various simulations -- one of its most valuable applications -- indicated the sensitivity of projected economic and population levels to assumptions regarding trends in the magnitude and distribution of visitor levels and facilities. In 2005, for example, total resident population would reach 1,120,000 with zero growth in tourism, but 1,544,900 with an average annual growth rate of 5 percent in visitor arrivals. The growth rate finally selected for use in these official projections, after discussion with the DPED Office of Tourism and other authorities, was as follows: 1980-1985, 5 percent annually; 1985-1990, 4 percent; 1990-1995, 3 percent; 1995-2000, 2 percent, and 2000-2005, 1 percent. It was also assumed that Oahu's share of hotel jobs will fall from 59.6 percent of the State total in 1980 to 46.1 percent in 2005 (table 7).

The resulting projections of civilian jobs were converted to corresponding employment and population levels, based on projected labor force participation rates, unemployment rates, and jobs per person ratios. The labor force participation rates, calculated by sex for each

age group, were assumed to converge with similar rates published by the U.S. Bureau of Labor Statistics for the nation.

Future fertility and mortality were likewise derived from current Hawaii data and national projections for the remainder of the century. In these calculations, the Bureau of the Census intermediate fertility projections were used, indicating a stabilization of the total fertility rate at 1.94 children per woman upon completion of child-bearing. This rate, well below the level necessary for exact replacement (2.1), compares to 1980 rates of 1.84 for the United States and 1.91 for Hawaii (civilians only). Continued improvement in age-sex specific survival rates was assumed for Hawaii, once again using Bureau of the Census national projections as a guide.

The level of net migration was determined by the projected employment levels and labor force participation rates, in conjunction with expected age and sex distributions for migrants derived from the 1981-82 data compiled from the Department of Health, Health Surveillance survey for Hawaii residents (other than military personnel and dependents) who had moved to the State within the preceding 12 months.

The demographic analysis described above was limited to the civilian population exclusive of military dependents. The military personnel and dependents were added as a final step, using 1980 data on their total numbers, to obtain resident population as defined for census purposes.

Table 1.-- POPULATION PROJECTIONS, RESIDENT AND DE FACTO, BY MILITARY AND RESIDENCE STATUS: 1970 TO 2005

[In thousands. Series M-F]

Year	Resident population 1/		De facto population 2/	
	Total	Excluding armed forces and dependents	Total	Visitors present
1970 (est.)	776.0	665.0	802.9	36.9
1975 (est.)	884.0	761.4	941.3	66.3
1980 (est.)	969.0	847.0	1,055.9	96.5
1985	1,057.8	935.8	1,166.4	124.0
1990	1,138.4	1,016.4	1,277.5	155.6
1995	1,211.5	1,089.5	1,373.0	179.0
2000	1,267.8	1,145.8	1,447.2	197.6
2005	1,310.0	1,188.0	1,501.0	207.7

1/ As of July 1. The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the census or estimate date. It includes armed forces stationed or homeported in an area but excludes persons of local origin attending school or in military service outside the area.

2/ The de facto population is defined as the number of persons physically present in an area, regardless of usual place of residence. It includes visitors present but excludes residents temporarily absent. The resident population is based on July 1 estimates; visitors present (shown below) and residents absent (not shown separately) are based on calendar year averages.

Table 2.-- POPULATION PROJECTIONS, RESIDENT AND DE FACTO, BY COUNTIES: 1970 TO 2005

[Thousands. Series M-F]

Type of population and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui 1/
Resident population: 2/						
1970 (est.)	776.0	634.7	141.3	64.5	30.1	46.7
1975 (est.)	884.0	714.3	169.7	78.1	34.1	57.5
1980 (est.)	969.0	765.0	204.0	92.8	39.3	71.9
1985	1,057.8	815.3	242.6	109.7	46.0	86.9
1990	1,138.4	859.3	279.1	122.6	55.1	101.4
1995	1,211.5	896.9	314.6	134.4	63.9	116.3
2000	1,267.8	925.7	342.2	143.2	69.1	129.9
2005	1,310.0	954.5	355.5	147.6	72.2	135.7
De facto population: 3/						
1970 (est.)	802.9	653.3	149.6	67.3	32.6	49.7
1975 (est.)	941.3	752.8	188.5	84.0	38.8	65.7
1980 (est.)	1,055.9	823.7	232.2	99.3	46.3	86.7
1985	1,166.4	883.4	283.0	118.2	54.2	110.6
1990	1,277.5	941.1	336.4	135.1	66.9	134.4
1995	1,373.0	985.2	387.8	150.6	79.3	157.9
2000	1,447.2	1,018.2	429.0	163.1	88.2	177.7
2005	1,501.0	1,052.1	448.9	168.6	92.2	188.1

1/ Includes Kalawao.
2/ For definitions, see table 1, footnote 1.
3/ For definitions, see table 1, footnote 2.

Table 3.-- RESIDENT POPULATION BY AGE AND SEX: 1980 TO 2005

[Series M-F]

Age in years	1980 (est.)			1985			1990		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total ..	968.0	496.6	471.4	1,057.8	539.9	517.9	1,138.4	578.5	560.0
0 to 4	77.2	39.7	37.6	85.1	43.6	41.5	89.4	45.7	43.6
5 to 9	73.6	38.0	35.6	78.1	40.3	37.7	83.4	43.0	40.4
10 to 14	75.0	38.8	36.2	74.9	38.5	36.4	78.1	40.1	38.0
15 to 19	86.3	45.9	40.5	83.1	44.7	38.5	82.9	44.6	38.3
20 to 24	106.3	59.4	46.8	110.4	62.6	47.7	109.5	62.7	46.8
25 to 29	95.8	48.8	47.0	100.0	51.2	48.8	101.4	52.5	48.9
30 to 34	85.1	43.6	41.5	93.8	47.4	46.3	98.2	49.8	48.4
35 to 39	65.5	33.4	32.1	79.9	40.5	39.4	88.8	44.8	43.9
40 to 44	46.9	23.5	23.4	62.9	31.4	31.4	75.6	37.7	37.9
45 to 49	43.6	20.8	22.8	50.1	24.4	25.7	61.8	30.2	31.6
50 to 54	49.8	23.2	26.6	47.3	22.4	24.9	52.8	25.4	27.4
55 to 59	48.3	24.2	24.1	47.1	22.4	24.7	47.7	22.6	25.1
60 to 64	38.3	19.0	19.3	43.7	21.1	22.6	44.8	21.1	23.7
65 to 69	28.8	15.3	13.5	36.0	17.9	18.2	40.0	19.1	20.9
70 to 74	20.6	11.0	9.6	26.7	13.5	13.2	32.2	15.5	16.7
75 to 79	13.7	6.6	7.1	18.1	9.0	9.1	23.1	11.1	12.1
80 to 84	7.6	3.3	4.3	11.2	5.2	6.0	14.8	6.9	8.0
85 and over .	5.6	2.1	3.5	9.5	3.8	5.8	14.0	5.7	8.3
Median age ..	28.4	27.7	29.2	29.9	28.9	30.9	31.3	30.1	32.5

Continued on next page.

Table 3.-- RESIDENT POPULATION BY AGE AND SEX: 1980 TO 2005 -- Con.

Age in years	1995			2000			2005		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	1,211.5	613.2	598.3	1,267.8	639.9	627.9	1,310.0	659.8	650.1
0 to 4	91.3	46.7	44.6	91.8	47.0	44.8	91.3	46.8	44.5
5 to 9	87.0	44.8	42.2	88.6	45.6	43.0	88.8	45.7	43.1
10 to 14	82.1	42.1	40.0	84.7	43.4	41.2	85.7	43.9	41.7
15 to 19	85.2	45.8	39.4	87.5	46.9	40.6	89.0	47.7	41.3
20 to 24	109.5	62.8	46.6	109.4	62.9	46.5	109.6	63.1	46.6
25 to 29	101.2	52.8	48.4	99.9	52.3	47.6	98.8	51.7	47.0
30 to 34	99.6	51.0	48.7	98.6	50.7	47.9	96.8	50.0	46.8
35 to 39	93.5	47.4	46.1	94.8	48.3	46.4	93.8	48.1	45.7
40 to 44	84.1	41.9	42.2	88.4	44.3	44.1	89.6	45.2	44.4
45 to 49	72.7	35.6	37.1	80.3	39.5	40.8	84.3	41.7	42.6
50 to 54	62.2	30.1	32.1	71.1	34.6	36.5	77.5	37.9	39.7
55 to 59	53.2	25.4	27.8	61.0	29.3	31.7	68.6	33.1	35.5
60 to 64	47.2	22.2	25.0	52.3	24.7	27.6	59.0	28.0	31.0
65 to 69	42.1	19.7	22.5	45.2	20.9	24.2	50.0	23.2	26.8
70 to 74	35.7	16.5	19.2	38.3	17.4	20.9	41.6	18.7	22.8
75 to 79	27.4	12.5	14.9	30.4	13.4	17.0	33.1	14.4	18.8
80 to 84	18.5	8.2	10.3	21.6	9.2	12.4	24.0	9.9	14.1
85 and over	19.0	7.7	11.3	24.0	9.4	14.6	28.6	10.8	17.8
Median age	32.5	31.1	33.9	33.7	32.2	35.3	34.7	33.1	36.5

Table 4.-- LABOR FORCE AND JOB PROJECTIONS: 1980 TO 2005

[Thousands. Series M-F]

Variable	1980 (est.)	1985	1990	1995	2000	2005
Civilian labor force (1,000)	439.0	488.4	533.4	575.6	607.9	627.7
Persons employed	417.0	461.5	503.9	544.2	574.7	593.7
Total jobs (1,000)	499.5	529.0	572.3	613.4	644.5	663.9
Armed forces	58.4	58.4	58.4	58.4	58.4	58.4
Civilian jobs	441.1	470.6	513.8	554.9	586.1	605.4
Self-employed	28.9	32.0	34.9	37.7	39.8	41.1
Wage and salary jobs by sector .	412.2	438.6	478.9	517.3	546.3	564.3
Agriculture	11.5	11.0	11.1	10.6	10.2	9.8
Food processing	11.5	11.1	11.0	10.8	10.5	10.3
Miscellaneous manufacturing ..	12.2	11.7	12.1	12.6	12.9	13.1
Construction	24.1	21.2	23.4	25.8	27.7	28.9
Transportation, communication, and utilities	30.9	32.1	35.5	38.3	40.2	40.6
Trade (exc. eating & drinking)	71.0	76.3	85.6	94.9	102.1	108.2
Eating and drinking places ...	34.5	39.1	43.6	47.8	50.6	51.9
Finance, insurance, and real estate	31.1	33.7	36.8	39.7	41.9	43.5
Hotels	24.8	28.3	31.8	35.0	36.9	37.1
Other services	71.7	79.9	88.4	96.8	103.5	108.0
State and local government ...	59.0	62.0	66.6	71.1	74.6	77.4
Federal government 1/	30.0	32.3	33.1	33.9	34.7	35.4

1/ Includes civilian employees of the armed forces.

Table 5.-- INCOME PROJECTIONS: 1980 TO 2005

[Constant 1980 dollars]

Year	Gross State product (millions)	Personal income (millions)	Disposable personal income (millions)	Per capita personal income (dollars)
1980 (est.)	11,336.2	9,862.0	8,385.0	10,188
1985	12,106.4	11,127.8	9,514.3	10,520
1990	14,061.8	12,896.3	11,026.3	11,328
1995	16,192.3	14,774.3	12,632.0	12,195
2000	18,264.4	16,611.9	14,203.1	13,103
2005	20,180.8	18,336.8	15,678.0	13,998

Table 6.-- POPULATION AND ECONOMIC PROJECTIONS, BY COUNTIES: 1980 TO 2005

[Series M-F]

County and variable	1980 (est.)	1985	1990	1995	2000	2005
Honolulu:						
Resident population (1,000)	765.0	815.3	859.3	896.9	925.7	954.5
De facto population (1,000)	823.7	883.4	941.1	985.2	1,018.2	1,052.1
Total jobs (1,000)	411.7	426.7	452.4	475.9	493.3	506.8
Armed forces	58.4	58.4	58.4	58.4	58.4	58.4
Civilian jobs	353.3	368.3	394.0	417.5	434.9	448.4
Agriculture	3.8	2.6	2.4	2.2	2.1	2.0
Manufacturing	17.5	16.8	17.0	17.2	17.3	17.2
Construction	19.5	16.8	18.2	19.7	20.8	21.7
Transp., com., and util.	25.7	26.2	28.4	30.0	31.0	31.2
Eating and drinking places	28.6	31.5	33.3	34.9	35.4	35.5
Other trade	59.0	62.5	69.0	75.1	80.1	84.2
Finance, insurance and real estate	27.0	28.5	30.6	32.4	33.8	34.9
Hotels	15.2	15.1	16.2	16.8	17.0	17.1
Other services	62.6	68.7	75.0	81.1	85.8	89.4
State and local government	46.7	47.9	50.3	52.6	54.5	56.5
Federal government 1/	28.9	31.1	31.8	32.6	33.3	34.1
Self-employed	18.8	20.6	21.8	22.9	23.7	24.5
Personal income (millions of 1980 dollars)	8,107.0	8,900.7	10,123.8	11,398.6	12,655.6	13,943.3
Per capita personal income (1980 dollars)	10,599	10,917	11,781	12,709	13,671	14,608

Continued on next page.

Table 6.-- POPULATION AND ECONOMIC PROJECTIONS, BY COUNTIES: 1980 TO 2005 -- Con.

County and variable	1980 (est.)	1985	1990	1995	2000	2005
Hawaii:						
Resident population (1,000)	92.8	109.7	122.6	134.4	143.2	147.6
De facto population (1,000)	99.3	118.2	135.1	150.6	163.1	168.6
Total jobs (1,000)	36.6	40.8	46.6	52.1	56.3	57.9
Armed forces	0	0	0	0	0	0
Civilian jobs	36.6	40.8	46.6	52.1	56.3	57.9
Agriculture	3.0	3.6	3.8	3.8	3.8	3.7
Manufacturing	2.9	2.7	2.8	2.8	2.8	2.8
Construction	1.9	1.7	2.0	2.2	2.5	2.6
Transp., com., and util.	1.9	2.2	2.5	2.9	3.1	3.2
Eating and drinking places	1.9	2.5	3.5	4.3	5.1	5.4
Other trade	5.1	5.7	6.5	7.2	7.7	7.9
Finance, insurance and real estate	1.2	1.3	1.5	1.7	1.9	2.0
Hotels	3.1	3.8	4.5	5.3	5.7	5.7
Other services	3.9	4.4	5.1	5.9	6.6	6.9
State and local government	5.9	6.4	7.3	8.1	8.7	9.0
Federal government 1/	.6	.6	.7	.7	.7	.7
Self-employed	5.4	5.8	6.5	7.2	7.7	8.0
Personal income (millions of 1980 dollars)	771.0	918.1	1,115.0	1,324.7	1,523.7	1,676.3
Per capita personal income (1980 dollars)	8,326	8,369	9,095	9,856	10,640	11,357

Continued on next page.

Table 6.-- POPULATION AND ECONOMIC PROJECTIONS, BY COUNTIES: 1980 TO 2005 -- Con.

County and variable	1980 (est.)	1985	1990	1995	2000	2005
Kauai:						
Resident population (1,000)	39.3	46.0	55.1	63.9	69.1	72.2
De facto population (1,000)	46.3	54.2	66.9	79.3	88.2	92.2
Total jobs (1,000)	17.6	20.0	24.4	28.7	31.3	32.8
Armed forces	0	0	0	0	0	0
Civilian jobs	17.6	20.0	24.4	28.7	31.3	32.8
Agriculture	1.5	1.6	1.6	1.4	1.2	1.0
Manufacturing	1.1	1.1	1.2	1.3	1.3	1.3
Construction	.9	.9	1.1	1.3	1.5	1.5
Transp., com., and util.	1.6	1.7	2.2	2.6	2.9	2.9
Eating and drinking places	1.4	1.8	2.4	3.1	3.5	3.9
Other trade	2.3	2.6	3.3	4.1	4.7	5.1
Finance, insurance and real estate	.9	1.0	1.2	1.4	1.6	1.7
Hotels	1.9	2.4	3.0	3.7	4.1	4.1
Other services	1.8	2.2	2.8	3.3	3.6	3.8
State and local government	2.5	2.8	3.4	3.9	4.2	4.5
Federal government 1/	.3	.3	.3	.3	.3	.3
Self-employed	1.4	1.7	2.0	2.3	2.5	2.6
Personal income (millions of 1980 dollars)	335.0	407.7	528.5	661.2	769.4	859.3
Per capita personal income (1980 dollars)	8,546	8,863	9,592	10,347	11,135	11,902

Continued on next page.

Table 6.-- POPULATION AND ECONOMIC PROJECTIONS, BY COUNTIES: 1980 TO 2005 -- Con.

County and variable	1980 (est.)	1985	1990	1995	2000	2005
Maui:						
Resident population (1,000)	71.9	86.9	101.4	116.3	129.9	135.7
De facto population (1,000)	86.7	110.6	134.4	157.9	177.7	188.1
Total jobs (1,000)	33.7	41.5	48.8	56.6	63.5	66.3
Armed forces	0	0	0	0	0	0
Civilian jobs	33.7	41.5	48.8	56.6	63.5	66.3
Agriculture	3.2	3.2	3.3	3.2	3.1	3.0
Manufacturing	2.2	2.1	2.1	2.1	2.1	2.1
Construction	1.8	1.8	2.2	2.6	2.9	3.1
Transp., com., and util.	1.7	2.0	2.4	2.8	3.2	3.3
Eating and drinking places	2.5	3.3	4.4	5.5	6.6	7.0
Other trade	4.5	5.6	6.9	8.5	10.0	11.0
Finance, insurance and real estate	2.1	2.9	3.5	4.1	4.7	5.0
Hotels	4.8	6.9	8.1	9.3	10.1	10.2
Other services	3.4	4.5	5.5	6.5	7.5	7.9
State and local government	3.9	4.9	5.7	6.5	7.2	7.4
Federal government 1/	.3	.3	.3	.3	.3	.4
Self-employed	3.2	3.8	4.5	5.2	5.8	6.1
Personal income (millions of 1980 dollars)	648.0	901.3	1,129.0	1,389.9	1,663.1	1,855.2
Per capita personal income (1980 dollars)	9,088	10,372	11,134	11,951	12,803	13,671

1/ Includes civilian employees of the armed forces.

Table 7.-- VISITOR INDUSTRY PROJECTIONS: 1982 TO 2005

[Series M-F]

Subject	1982 (est.)	1985	1990	1995	2000	2005
Visitor arrivals (1,000)	4,243	5,000.0	6,083.3	7,052.2	7,786.2	8,183.4
Non-Japanese	3,528	4,125.0	4,866.6	5,641.8	6,229.0	6,546.7
Japanese	715	875.0	1,216.7	1,410.4	1,557.2	1,636.7
Average visitor census (1,000)	105.0	124.0	155.6	179.0	197.6	207.7
Oahu	72.0	80.6	95.0	102.0	106.7	112.2
Hawaii County	7.0	9.9	14.0	17.9	21.7	22.8
Kauai County	7.3	8.7	12.4	16.1	19.8	20.8
Maui County	18.8	24.8	34.2	43.0	49.4	54.0
Hotel employment (1,000)	26.5	28.3	31.8	35.0	36.9	37.1
Oahu	14.7	15.1	16.2	16.8	17.0	17.1
Hawaii County	3.2	3.8	4.5	5.3	5.7	5.7
Kauai County	2.2	2.4	3.0	3.7	4.1	4.1
Maui County	6.4	6.9	8.1	9.3	10.1	10.2
Visitor and crew expenditures (millions of 1980 dollars)	3,171.7	3,669.7	4,477.4	5,190.5	5,730.6	6,022.9

Table 8.-- POPULATION PROJECTIONS BY VARIOUS SOURCES: 1985 TO 2030

[In thousands. Unless otherwise specified, data refer to total resident population. For full citations and additional information on methods and findings, see Hawaii Population and Economic Simulations and Projections Model: Updated State and County Forecasts, Appendix D]

Geographic area, source, and date of publication 1/	1985	1990	1995	2000	2005	2010	2030
STATE							
DPED, 1978 (series II-F):							
Resident	1,021	1,092	1,164	1,226	...	...	...
De facto	1,133	1,230	1,325	1,395	...	...	...
BEA, 1981	1,005	1,079	1,152	1,229	...	1,350	1,522
BEA, 1981, rev.	1,045	1,119	...	1,269	...	...	...
NPA, 1982	...	1,017	...	1,165	...	...	...
JCUS, MIT, 1983	...	...	...	1,399	...	...	...
Bureau of Census, 1983	...	1,138	...	1,278	...	...	...
NPA, 1983	...	1,104	...	1,300	...	...	...
DPED, 1984 (series M-F):							
Resident	1,058	1,138	1,211	1,268	1,310	...	...
De facto	1,166	1,277	1,373	1,447	1,501	...	...
OAHU							
DPED, 1978 (series II-F):							
Resident	804	845	886	917	...	...	...
De facto	866	918	966	996	...	...	...
BEA, 1981:							
"No change in share"	802	861	...	980	...	...	1,214
"Low change"	796	851	...	967	...	...	1,196
"Moderate change"	793	846	...	957	...	...	1,177
BWS, 1981:							
Resident	804	845	886	947	...	...	...
De facto	859	909	958	1,027	...	...	...
DGP, 1983:							
Low	...	...	...	872	...	...	...
High	...	...	...	963	...	...	...
NPA, 1983	...	...	...	1,000+	...	...	...
DPED, 1984 (series M-F):							
Resident	815	859	897	926	954	...	...
De facto	883	941	985	1,018	1,052	...	...

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Table 8.-- POPULATION PROJECTIONS BY VARIOUS SOURCES:
1985 TO 2030 -- Con.

Geographic area, source, and date of publication 1/	1985	1990	1995	2000	2005	2010	2030
NEIGHBOR ISLANDS							
DPED, 1978 (series II-F)							
Resident	217	246	278	308	...	...	...
De facto	267	312	359	399	...	...	...
BEA, 1981:							
"No change in share" ..	203	218	...	249	...	...	308
"Low change"	209	228	...	262	...	...	326
"Moderate change"	212	233	...	273	...	...	346
DPED, 1984 (series M-F):							
Resident	243	279	310	342	356	...	...
De facto	283	336	388	429	449	...	...

1/ Abbreviations are as follows:
BEA - U.S. Bureau of Economic Analysis.
NPA - National Planning Association.
JCUS, MIT - Joint Center for Urban Studies of the Massachusetts Institute of Technology.
BWS - Honolulu Board of Water Supply.
DGP - City & County of Honolulu, Dept. of General Planning.